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ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
14819A LANCE MISSILE NO. 3315, ROUND NO. 309 APT (25 JANUARY 19--ETC(U)
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DR-961
January 1978

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METEOROLOGICAL DATA REPORT

14819A LANCE
MISSILE NO. 3315, ROUND NO. 309 APT
(25 JANUARY 1978)

BY

WSMR METEOROLOGICAL TEAM

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INTRODUCTION

14819A Lance, Missile Number 3315, Round Number 309 APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1133 HRS MST, 25 January 1978. The scheduled launch time was 1130 HRS MST.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	4,064	FEET/MSL
PRESSURE	877.9	MBS
TEMPERATURE	6.7	°C
RELATIVE HUMIDITY	35	%
DEW POINT	-7.5	°C
DENSITY	1,090	GM/M ³
WIND SPEED	02	MPH
WIND DIRECTION	240	DEGREES
CLOUD COVER	CLEAR	

TABLE I. SURFACE OBSERVATIONS TAKEN AT LC-39, 1130 HRS MST/25 JANUARY 1978.

ACCESSION No.	
NTIS	White Section <input checked="" type="checkbox"/>
DDC	Buff Section <input type="checkbox"/>
UNANNOUNCED	<input type="checkbox"/>
JUSTIFICATION	
BY	
DISTRIBUTION/AVAILABILITY CODES	
Dist.	AVAIL. and/or SPECIAL
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HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM		2100	333	08.0
100	200	00.5	2200	327	07.5
200	239	00.5	2300	326	07.5
300	270	01.5	2400	324	07.0
400	264	02.0	2500	327	10.0
500	258	02.0	2600	331	13.5
600	254	00.5	2700	333	15.0
700	292	01.5	2800	335	16.5
800	330	02.0	2900	335	16.0
900	338	03.5	3000	334	15.5
1000	349	05.0	3100	338	16.0
1100	348	05.0	3200	343	16.5
1200	347	05.5	3300	342	19.0
1300	350	07.0	3400	341	21.5
1400	353	08.0	3500	345	19.0
1500	344	06.5	3600	349	17.0
1600	334	05.0	3700	350	20.5
1700	334	05.5	3800	351	24.0
1800	335	06.0	3900	353	25.0
1900	336	07.5	4000	355	26.0
2000	337	09.0	4100	353	28.0

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-39, AT 1:20 MST/25 JANUARY 1978
14819A LANCE, MISSILE NO. 3315, ROUND NO. 309 APT.

PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564.96 Z = 4,063.75

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	352	30.5
4300	352	27.5
4400	353	24.5
4500	351	24.5
4600	348	25.0
4700	348	27.0
4800	348	28.5
4900	348	28.0
5000	349	27.5
5100	346	26.0
5200	344	24.0
5300	344	25.5
5400	344	27.0
5500	345	29.5
5600	346	32.0
5700	346	32.0
5800	345	32.5
5900	345	33.0
6000	345	33.5
6100	347	34.0
6200	348	34.5
6300	349	35.0
6400	350	36.0
6500	350	37.0
6600	350	38.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6700	350	39.0
6800	351	39.5
6900	350	40.5
7000	349	41.5
7100	350	41.5
7200	351	41.5
7300	350	42.0
7400	349	43.0
7500	348	40.5
7600	348	38.5
7700	348	39.5
7800	348	40.5
7900	347	39.0
8000	347	38.0
8100	345	39.5
8200	343	41.0
8300	343	41.5
8400	342	42.0
8500	342	40.0
8600	343	37.5
8700	341	39.5
8800	339	41.0
8900	339	39.5
9000	338	38.5

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	240	02.0	2100	326	08.0
100	210	01.5	2200	325	10.0
200	180	00.5	2300	328	11.0
300	265	02.0	2400	332	12.0
400	347	03.5	2500	332	14.0
500	337	03.0	2600	333	16.5
600	327	03.0	2700	338	18.5
700	334	04.0	2800	343	20.0
800	332	04.5	2900	343	18.0
900	337	04.0	3000	344	16.0
1000	342	03.5	3100	340	16.0
1100	337	04.0	3200	337	15.5
1200	333	04.0	3300	340	16.0
1300	330	04.0	3400	342	16.0
1400	327	03.5	3500	343	15.5
1500	322	04.0	3600	344	15.5
1600	318	04.5	3700	346	18.5
1700	316	05.0	3800	348	21.5
1800	312	05.0	3900	349	22.5
1900	304	05.5	4000	350	23.0
2000	297	06.0	4100	350	24.0

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-39, AT 1130/25 JANUARY 1978
14819A LANCE, MISSILE NO. 3315, ROUND NO. 309 APT.

PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564.96 Z = 4,063.75

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	350	25.5
4300	349	25.5
4400	348	25.5
4500	347	25.0
4600	345	24.0
4700	345	24.0
4800	346	24.0
4900	346	25.0
5000	347	26.5
5100	347	26.0
5200	346	25.0
5300	345	25.0
5400	344	24.5
5500	344	27.5
5600	344	30.0
5700	344	30.5
5800	344	31.0
5900	346	33.0
6000	347	34.5
6100	347	35.0
6200	347	35.5
6300	348	35.5
6400	349	35.5
6500	349	37.0
6600	349	38.5

HEIGHT (FEET)	DIIRECTION (DEGREES)	SPEED (MPH)
6700	349	39.0
6800	349	39.5
6900	349	40.5
7000	350	41.5
7100	350	42.0
7200	350	42.5
7300	349	43.0
7400	348	43.0
7500	348	41.5
7600	348	40.5
7700	348	41.0
7800	347	42.0
7900	346	41.0
8000	345	40.0
8100	345	40.5
8200	344	41.0
8300	343	39.5
8400	342	38.0
8500	341	38.0
8600	340	38.0
8700	340	37.5
8800	340	37.0
8900	338	38.0
9000	336	38.5

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 3989.00 FEET NSL
25 JAN. 78 1145 HRS MST
ASCENSION NO. 65

SIGNIFICANT LEVEL DATA
0250020065
WHITE SANDS
TABLE IV.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM. PERCENT
MILLIBARS	ALTITUDE MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
882.0	3989.0	5.3	-7.8	38.0
874.4	4223.8	2.8	-8.8	42.0
850.0	4972.4	.6	-9.7	46.0
768.6	7599.2	-4.4	-13.7	48.0
758.8	7932.1	-2.4	-12.4	46.0
729.8	8945.4	-3.2	-13.1	46.0
700.0	10029.5	-2.2	-13.4	42.0
625.4	12937.9	-7.1	-17.2	43.0
616.4	13308.5	-7.1	-19.6	36.0
599.2	14032.1	-7.1	-19.3	37.0
539.6	16681.3	-12.8	-24.7	36.0
500.0	18568.6	-17.8	-29.2	36.0
475.2	19811.1	-19.7	-31.5	34.0
400.0	23920.3	-29.2	-40.3	34.0
322.4	28848.7	-40.3	-50.3	33.0
300.0	30444.7	-43.6		
250.0	34364.6	-54.1		
228.6	36229.2	-57.3		
200.0	38970.6	-60.8		
179.0	41233.1	-59.6		
162.4	43226.0	-59.0		
150.0	44865.1	-56.2		
143.0	45654.0	-57.6		
122.3	48984.1	-59.0		
100.0	53149.0	-63.4		
76.0	58580.9	-68.5		
70.0	60219.8	-62.4		
67.0	61112.9	-57.3		
55.8	64817.1	-65.2		
50.0	67012.8	-64.3		

GEOMETRIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

SIGNIFICANT LEVEL DATA

0250020065
WHITE SANDS
TABLE IV. (CONT)

STATION ALTITUDE 3909.00 FEET MSL
25 JAN. 78
ASCENSION NO. 65

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE AIR DEW POINT		REL. HUM.
MILLIBARS	MSL FEET	DEGREES	CENTIGRADE	PERCENT
36.6	73202.6	-61.1		
30.0	77364.1	-58.4		
20.0	85728.5	-55.4		
10.0	100309.0	-49.4		
8.9	102797.6	-46.3		

UPPER AIR DATA

STATION ALTITUDE 3909.00 FEET MSL
25 JAN. 78
ASCENSION NO. 60

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

0250020065
WHITE SANDS
TABLE V.

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES (TN)	SPEED KNOTS	
3989.0	682.0	5.3	-7.8	38.0	1101.9	650.6	.0	.0	.0	1.000262
4000.0	881.6	5.2	-7.9	38.2	1101.9	650.4	302.0	302.0	.0	1.000262
4500.0	865.3	2.0	-9.1	43.5	1094.2	646.6	302.0	302.0	.6	1.000259
5000.0	849.1	.5	-9.7	46.0	1079.3	644.9	302.0	302.0	1.2	1.000255
5500.0	833.0	-4	-10.5	46.4	1062.6	643.8	302.0	302.0	1.8	1.000251
6000.0	817.2	-1.4	-11.2	46.8	1046.1	642.6	302.0	302.0	2.4	1.000246
6500.0	801.7	-2.3	-12.0	47.2	1029.9	641.5	314.6	314.6	9.1	1.000242
7000.0	786.5	-3.3	-12.8	47.5	1014.0	640.4	316.5	316.5	16.1	1.000238
7500.0	771.5	-4.2	-13.6	47.9	998.3	639.2	322.2	322.2	21.3	1.000234
8000.0	756.8	-2.5	-12.5	46.0	972.8	641.3	326.2	326.2	26.4	1.000229
8500.0	742.4	-2.8	-12.8	46.0	955.7	640.9	331.0	331.0	26.3	1.000225
9000.0	728.3	-3.2	-13.2	45.8	938.6	640.5	335.6	335.6	26.2	1.000221
9500.0	714.4	-2.7	-13.3	44.0	919.3	641.0	333.4	333.4	29.3	1.000216
10000.0	700.8	-2.3	-13.4	42.1	900.4	641.5	331.9	331.9	32.3	1.000212
10500.0	687.4	-3.1	-14.1	42.2	882.6	640.6	332.0	332.0	34.7	1.000206
11000.0	674.2	-3.9	-14.8	42.5	871.3	639.6	331.6	331.6	36.7	1.000204
11500.0	661.2	-4.7	-15.5	42.5	857.3	638.6	328.5	328.5	37.1	1.000201
12000.0	648.5	-5.6	-16.2	42.7	843.4	637.6	325.5	325.5	37.7	1.000197
12500.0	636.1	-6.4	-16.9	42.8	829.9	636.6	322.8	322.8	38.9	1.000194
13000.0	623.9	-7.1	-17.8	41.8	816.2	635.7	320.6	320.6	40.0	1.000190
13500.0	611.6	-7.1	-19.5	36.3	800.4	635.7	321.3	321.3	40.8	1.000185
14000.0	600.0	-7.1	-19.3	37.0	784.9	635.7	322.0	322.0	41.5	1.000182
14500.0	588.2	-8.1	-20.2	36.8	772.5	634.5	323.1	323.1	41.3	1.000179
15000.0	576.7	-9.2	-21.3	36.6	760.5	633.2	324.0	324.0	41.4	1.000175
15500.0	565.4	-10.5	-22.5	36.4	748.7	631.9	324.5	324.5	42.5	1.000172
16000.0	554.5	-11.3	-23.5	36.3	737.1	630.6	324.8	324.8	43.5	1.000169
16500.0	543.5	-12.4	-24.3	36.1	725.7	629.5	324.4	324.4	44.0	1.000166
17000.0	532.7	-13.6	-25.5	36.0	714.7	627.7	323.9	323.9	44.4	1.000164
17500.0	522.0	-15.0	-26.6	36.0	704.1	626.1	322.5	322.5	44.3	1.000161
18000.0	511.6	-16.3	-27.8	36.0	693.6	624.5	321.1	321.1	44.2	1.000158

STATION ALTITUDE 3929.00 FEET MSL
25 JAN. 78 1145 HRS MST
ASCENSION NO. 65

UPPER AIR DATA
0250020065
WHITE SANDS
TABLE V. (CONT)

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	RFL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGRES(TN)	SPEED KNOTS	
16500.0	501.4	-17.6	-29.0	36.0	683.3	622.9	319.6	44.5	1.000155
17000.0	491.2	-18.5	-30.0	35.3	671.7	621.6	318.9	45.0	1.000153
17500.0	481.3	-19.2	-30.9	34.5	660.1	620.9	319.9	46.0	1.000150
20000.0	471.5	-20.2	-31.9	34.0	640.9	619.8	321.5	46.4	1.000147
20500.0	461.7	-21.3	-33.0	34.0	638.5	618.3	323.9	46.1	1.000144
21000.0	452.1	-22.5	-34.0	34.0	628.3	616.8	325.2	46.3	1.000142
21500.0	442.7	-23.7	-35.1	34.0	618.2	615.5	326.0	46.8	1.000140
22000.0	433.5	-24.9	-36.2	34.0	608.3	613.9	325.5	47.4	1.000137
22500.0	424.5	-26.1	-37.2	34.0	598.5	612.4	324.9	47.9	1.000135
23000.0	415.7	-27.3	-38.3	34.0	589.0	610.9	325.0	47.3	1.000133
23500.0	407.1	-28.5	-39.4	34.0	579.6	609.4	324.7	47.1	1.000130
24000.0	398.6	-29.7	-40.4	34.0	570.2	607.9	323.8	47.6	1.000126
24500.0	390.0	-30.8	-41.5	33.9	560.4	606.6	322.1	47.8	1.000126
25000.0	381.5	-31.9	-42.5	33.8	550.8	605.2	320.1	48.0	1.000124
25500.0	373.3	-33.0	-43.5	33.7	541.3	603.6	319.3	48.4	1.000121
26000.0	365.2	-34.1	-44.5	33.6	532.1	602.4	318.6	48.7	1.000119
26500.0	357.3	-35.2	-45.5	33.5	522.9	601.6	317.7	48.6	1.000117
27000.0	349.6	-36.2	-46.5	33.4	514.0	599.7	316.3	48.5	1.000115
27500.0	342.0	-37.3	-47.5	33.3	505.2	598.3	314.1	48.2	1.000113
28000.0	334.6	-38.4	-48.5	33.2	496.6	596.9	311.7	47.9	1.000111
28500.0	327.4	-39.5	-49.6	33.1	488.1	595.5	309.1	47.8	1.000109
29000.0	320.2	-40.6	-51.4	29.9**	479.7	594.1	306.8	48.0	1.000107
29500.0	313.1	-41.6	-55.8	19.5**	471.1	592.8	304.6	48.5	1.000105
30000.0	306.1	-42.7	-62.5	9.2**	462.6	591.4	301.7	49.1	1.000103
30500.0	299.2	-43.7			454.4	590.1	296.7	49.9	1.000101
31000.0	292.4	-45.1			446.0	588.5	295.5	48.9	1.000099
31500.0	285.6	-46.4			438.9	586.6	292.5	48.1	1.000096
32000.0	279.1	-47.8			431.3	584.9	291.1	47.2	1.000096
32500.0	272.7	-49.1			423.9	583.1	289.6	46.6	1.000094
33000.0	266.4	-50.4			416.7	581.4	289.1	47.2	1.000093

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEOMETRIC COORDINATES
32.40043 LAT DEG
106.57033 LON DEG

UPPER AIR DATA
0250020165
WHITE SANDS
TABLE V. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
25 JAN. 78
ASCENSION NO. 65
1145 HRS MST

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	RFL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
33500.0	260.3	-51.8		405.6	579.6	288.6	48.6	1.0000691
34000.0	254.3	-53.1		402.6	577.9	288.4	51.8	1.0000090
34500.0	248.4	-54.3		395.4	576.3	288.8	56.2	1.0000088
35000.0	242.5	-55.2		387.0	575.2	289.7	62.3	1.0000086
35500.0	236.7	-56.0		379.9	574.0	290.5	68.5	1.0000085
36000.0	231.1	-56.9		372.3	572.9	291.5	74.9	1.0000083
36500.0	225.6	-57.6		364.7	571.9	292.5	80.6	1.0000081
37000.0	220.2	-58.3		357.0	571.1	294.0	84.8	1.0000079
37500.0	214.9	-58.9		349.4	570.2	295.3	88.1	1.0000078
38000.0	209.7	-59.6		342.0	569.4	296.2	88.5	1.0000076
38500.0	204.6	-60.2		334.6	568.5	296.8	88.7	1.0000075
39000.0	199.7	-60.8		327.6	567.7	295.8	88.0	1.0000073
39500.0	194.9	-60.5		319.3	568.1	294.5	87.7	1.0000071
40000.0	190.2	-60.3		311.2	568.4	292.8	88.7	1.0000069
40500.0	185.6	-60.0		303.2	568.6	291.1	89.0	1.0000068
41000.0	181.1	-59.7		295.5	569.1	289.6	90.0	1.0000066
41500.0	176.7	-59.5		288.1	569.4	287.9	89.9	1.0000064
42000.0	172.4	-59.4		281.0	569.6	285.8	89.2	1.0000063
42500.0	168.3	-59.2		274.0	569.8	284.1	88.7	1.0000061
43000.0	164.2	-59.1		267.2	570.0	282.9	88.4	1.0000060
43500.0	160.3	-58.5		260.1	570.7	282.7	87.6	1.0000058
44000.0	156.4	-57.7		252.9	571.9	282.8	86.6	1.0000056
44500.0	152.7	-56.8		245.9	573.0	282.7	85.2	1.0000055
45000.0	149.0	-56.4		239.5	573.5	282.6	83.7	1.0000053
45500.0	145.5	-57.2		234.7	572.5	282.1	82.6	1.0000052
46000.0	142.0	-57.9		229.7	571.6	281.5	81.4	1.0000051
46500.0	138.6	-58.0		224.4	571.4	280.8	79.1	1.0000050
47000.0	135.2	-58.2		219.2	571.1	280.0	76.6	1.0000049
47500.0	132.0	-58.4		214.2	570.9	279.1	73.3	1.0000048
48000.0	128.8	-58.6		209.2	570.6	278.1	69.7	1.0000047

STATION ALTITUDE 3909.00 FEET MSL
25 JAN. 78 1145 HRS PST
ASCENSION NO. 65

UPPER AIR DATA
0250020065
WHITE SANDS
TABLE V. (CONT)

GEOMETRIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
40500.0	125.7	-58.6			204.3	570.4	277.1	66.5	1.000046
44000.0	122.7	-59.0			199.6	570.1	276.4	63.6	1.000044
44500.0	119.7	-59.5			195.2	569.4	275.6	61.0	1.000043
50300.0	116.8	-60.1			191.0	568.7	274.9	59.1	1.000043
50500.0	114.0	-60.6			186.8	568.0	274.7	57.7	1.000042
51000.0	111.2	-61.1			182.7	567.3	276.1	57.9	1.000041
51500.0	108.5	-61.7			178.7	566.6	278.0	56.5	1.000040
52000.0	105.8	-62.2			174.8	565.8	281.1	60.3	1.000039
52500.0	103.3	-62.7			170.9	565.1	283.9	62.0	1.000038
53000.0	100.7	-63.2			167.2	564.4	284.7	60.3	1.000037
53500.0	98.2	-63.7			163.4	563.6	285.4	58.7	1.000036
54000.0	95.8	-64.2			159.7	563.1	285.0	55.3	1.000036
54500.0	93.4	-64.7			156.1	562.5	283.6	50.7	1.000035
55000.0	91.1	-65.1			152.5	561.9	282.1	46.9	1.000034
55500.0	88.8	-65.6			149.1	561.2	281.4	45.6	1.000033
56000.0	86.6	-66.1			145.7	560.6	280.7	44.2	1.000032
56500.0	84.4	-66.5			142.4	560.0	280.7	43.8	1.000032
57000.0	82.3	-67.0			139.1	559.3	280.8	43.0	1.000031
57500.0	80.3	-67.5			136.0	558.7	280.6	42.4	1.000030
58000.0	78.3	-67.9			132.9	558.1	279.9	39.8	1.000030
58500.0	76.3	-68.4			129.9	557.4	279.0	37.2	1.000029
59000.0	74.4	-67.0			125.8	559.4	278.9	33.8	1.000028
59500.0	72.6	-65.1			121.5	561.9	278.8	30.5	1.000027
60000.0	70.8	-63.2			117.5	564.5	280.8	26.1	1.000026
60500.0	69.0	-60.8			113.3	567.7	284.1	26.3	1.000025
61000.0	67.4	-57.9			109.1	571.5	287.2	24.8	1.000024
61500.0	65.7	-58.1			106.5	571.3	288.3	23.7	1.000024
62000.0	64.1	-59.2			104.4	569.8	289.5	22.6	1.000023
62500.0	62.6	-60.3			102.4	568.4	287.1	22.1	1.000023
63000.0	61.0	-61.3			100.4	567.0	283.8	21.8	1.000022

UPPER AIR DATA
 025000Z0065
 WHITE SANDS
 TABLE V. (CONT)

STATION ALTITUDE 3969.00 FEET MSL
 25 JAN. 78
 ASCENSION NO. 65

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REF. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
					KNOTS	FEET			
63500.0	59.5	-62.4		98.4	565.6		280.6	21.6	1.000022
64000.0	58.1	-63.5		96.5	564.1		277.6	21.7	1.000021
64500.0	56.7	-64.5		94.6	562.7		274.7	21.8	1.000021
65000.0	55.3	-65.0		92.5	562.1		273.6	19.6	1.000021
65500.0	53.9	-64.3		90.0	563.0		272.5	17.6	1.000020
66000.0	52.6	-63.6		87.5	563.9		271.4	14.8	1.000019
66500.0	51.3	-63.0		85.0	564.6		270.5	11.4	1.000019
67000.0	50.0	-62.3		82.7	565.7		268.7	8.0	1.000018
67500.0	48.8	-62.2		80.6	565.8		265.5	6.3	1.000018
68000.0	47.6	-62.1		78.6	566.0		260.1	4.8	1.000017
68500.0	46.4	-62.0		76.6	566.1		255.4	3.8	1.000017
69000.0	45.3	-61.9		74.7	566.2		256.0	3.5	1.000017
69500.0	44.2	-61.8		72.9	566.3		256.7	3.2	1.000016
70000.0	43.1	-61.7		71.1	566.5		258.2	2.8	1.000016
70500.0	42.1	-61.6		69.3	566.6		260.8	2.4	1.000015
71000.0	41.0	-61.5		67.6	566.7		264.5	1.9	1.000015
71500.0	40.0	-61.4		65.9	566.9		278.6	1.2	1.000015
72000.0	39.1	-61.3		64.2	567.0		321.5	.8	1.000014
72500.0	38.1	-61.2		62.6	567.1		14.8	1.1	1.000014
73000.0	37.2	-61.1		61.1	567.3		23.0	2.0	1.000014
73500.0	36.3	-60.9		59.5	567.6		25.6	3.0	1.000013
74000.0	35.4	-60.6		58.0	568.0		25.2	4.0	1.000013
74500.0	34.5	-60.3		56.5	568.4		14.2	4.7	1.000013
75000.0	33.7	-59.9		55.0	568.9		6.2	5.4	1.000012
75500.0	32.9	-59.6		53.6	569.3		.6	6.2	1.000012
76000.0	32.1	-59.3		52.3	569.7		356.6	6.6	1.000012
76500.0	31.3	-59.0		50.9	570.2		353.2	7.1	1.000011
77000.0	30.5	-58.6		49.6	570.6		351.2	7.5	1.000011
77500.0	29.8	-58.4		48.3	571.0		357.6	7.5	1.000011
78000.0	29.1	-58.2		47.1	571.2		4.4	7.6	1.000010

STATION ALTITUDE 3909.00 FEET MSL
25 JAN. 78 1145 HRS MST
ASCENSION NO. 65

UPPER AIR DATA
J250020J065
WHITE SANDS
TABLE V. (CONT)

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REF. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES(TN)	SPEED KNOTS	
70500.0	20.4	-58.0			46.0	571.4	10.7	7.6	1.000010
79000.0	27.7	-57.8			44.8	571.7	15.1	6.5	1.000010
74500.0	27.0	-57.6			43.7	571.9	18.7	9.3	1.000010
80000.0	26.4	-57.5			42.6	572.2	21.7	10.1	1.000009
80500.0	25.8	-57.3			41.6	572.4	27.1	10.9	1.000009
81000.0	25.2	-57.1			40.6	572.6	32.3	11.7	1.000009
81500.0	24.5	-56.9			39.6	572.9	36.7	12.7	1.000009
82000.0	24.0	-56.7			38.6	573.1	41.2	13.1	1.000009
82500.0	23.4	-56.6			37.6	573.3	45.9	13.4	1.000008
83000.0	22.8	-56.4			36.7	573.6	50.3	13.8	1.000008
83500.0	22.3	-56.2			35.6	573.8	47.5	12.7	1.000008
84000.0	21.7	-56.0			34.9	574.1	36.9	10.6	1.000006
84500.0	21.2	-55.8			34.0	574.3	22.5	9.5	1.000008
85000.0	20.7	-55.7			33.2	574.5	10.7	8.7	1.000007
85500.0	20.2	-55.5			32.4	574.8	5.5	7.9	1.000007
86000.0	19.7	-55.3			31.6	575.0	359.3	7.3	1.000007
86500.0	19.3	-55.1			30.8	575.3	351.2	6.9	1.000007
87000.0	18.8	-54.9			30.0	575.6	335.9	6.4	1.000007
87500.0	18.4	-54.7			29.3	575.8	326.8	11.4	1.000007
88000.0	18.0	-54.5			28.6	576.1	320.9	14.0	1.000006
88500.0	17.5	-54.3			27.4	576.4	322.2	13.8	1.000006
89000.0	17.1	-54.1			27.2	576.7	341.9	8.9	1.000006
89500.0	16.7	-53.8			26.6	576.9	25.3	6.8	1.000006
90000.0	16.3	-53.6			25.9	577.2	66.4	9.3	1.000006
90500.0	15.9	-53.4			25.3	577.5	75.0	12.3	1.000006
91000.0	15.6	-53.2			24.7	577.7	75.6	14.5	1.000005
91500.0	15.2	-53.0			24.1	578.0	76.1	16.6	1.000005
92000.0	14.8	-52.8			23.5	578.3	76.4	19.0	1.000005
92500.0	14.5	-52.6			22.9	578.5	66.6	16.3	1.000005
93000.0	14.2	-52.4			22.3	578.8	52.6	14.0	1.000005

UPPER AIR DATA
 0250020005
 WHITE SANDS
 TABLE V. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
 25 JAN. 76
 ASCENSION NO. 65

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
9500.0	13.8	-52.2			21.8	579.1	34.7	12.9	1.000005
9400.0	13.5	-52.0			21.3	579.4	19.6	12.8	1.000005
9300.0	13.2	-51.8			20.7	579.6	16.4	12.2	1.000005
9200.0	12.9	-51.6			20.2	579.9	12.9	11.7	1.000005
9100.0	12.6	-51.4			19.7	580.2	9.2	11.2	1.000004
9000.0	12.3	-51.2			19.3	580.4	5.0	11.2	1.000004
8900.0	12.0	-51.0			18.8	580.7	1.1	11.6	1.000004
8800.0	11.7	-50.8			18.3	581.0	357.4	12.1	1.000004
8700.0	11.4	-50.6			17.9	581.2	354.0	12.7	1.000004
8600.0	11.2	-50.4			17.4	581.5	354.5	11.9	1.000004
8500.0	10.9	-50.1			17.0	581.8	355.9	10.9	1.000004
8400.0	10.6	-49.9			16.6	582.0	357.5	9.9	1.000004
8300.0	10.4	-49.7			16.2	582.3			1.000004
8200.0	10.1	-49.5			15.8	582.6			1.000004
8100.0	9.9	-49.3			15.4	582.9			1.000003
8000.0	9.7	-49.1			15.1	583.1			1.000003
7900.0	9.5	-48.9			14.7	583.4			1.000003
7800.0	9.2	-48.7			14.3	583.7			1.000003
7700.0	9.0	-48.4			14.0	584.0			1.000003

MANDATORY LEVELS
0250020065
WHITE SANDS
TABLE VI.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

STATION ALTITUDE 3989.00 FEET MSL
25 JAN. 78
ASCENSION NO. 65

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CF	DEWPOINT DEGREE F		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4971.	0.0	-4.7	46.	302.0	1.2
800.0	6559.	-2.4	-12.1	47.	315.0	10.0
750.0	8235.	-2.6	-12.6	46.	328.4	26.5
700.0	10029.	-2.5	-13.4	42.	331.9	32.4
650.0	11949.	-5.5	-16.1	43.	325.7	37.7
600.0	14000.	-7.1	-19.3	37.	322.1	41.5
550.0	16208.	-11.8	-23.7	36.	324.6	43.8
500.0	18576.	-17.8	-29.2	36.	319.4	44.6
450.0	21140.	-22.8	-34.3	34.	325.5	46.4
400.0	23936.	-29.5	-40.3	34.	323.8	47.6
350.0	27020.	-36.2	-46.5	35.	316.1	48.4
300.0	30474.	-43.6			298.6	49.8
250.0	34404.	-54.1			288.7	55.7
200.0	39024.	-60.8			295.5	87.9
175.0	41758.	-59.5			286.4	89.4
150.0	44940.	-56.2			282.6	83.6
125.0	48710.	-58.9			276.7	64.6
100.0	53259.	-63.4			285.3	59.1
80.0	57712.	-67.5			280.1	40.5
70.0	60365.	-62.4			284.4	28.2
60.0	63526.	-62.1			275.3	21.6
50.0	67196.	-62.5			266.2	6.6
40.0	71727.	-61.4			310.2	.8
30.0	77614.	-58.4			3.2	7.6
25.0	81389.	-57.1			38.4	13.0
20.0	86040.	-55.4			353.6	6.8
15.0	92095.	-52.9			00.6	16.2
10.0	100745.	-49.4				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3951.40 FELT MSL
25 JAN. 78 1145 HRS MST
ASCENSION NO. 4

SIGNIFICANT LEVEL DATA
0250050009
APACHE
TABLE VII.

GEODETIC COORDINATES
32.62700 LAT DEG
106.34352 LON DEG

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE AIR DEWPOINT		REF. HUP. PERCENT
MILLIBARS	MSL FEET	DEGREES	CENTIGRADE	
884.8	3951.4	4.0	-12.4	29.0
874.3	4272.2	1.8	-12.4	34.0
850.0	5015.0	-2.2	-13.4	36.0
820.3	5948.3	-5.5	-14.0	35.0
768.3	7654.4	-4.0	-16.5	37.0
749.3	8302.8	-3.7	-16.6	36.0
720.3	9329.7	-1.4	-15.9	32.0
700.0	10077.3	-5.9	-17.5	27.0
642.8	12290.8	-5.1	-19.0	31.0
630.4	12793.6	-4.0	-23.6	20.0
574.3	15183.2	-8.5	-27.4	20.0
500.0	18645.2	-17.3	-35.3	14.0
459.3	20716.8	-20.6	-39.7	16.0
400.0	24009.5	-29.2	-46.4	17.0
377.3	25360.0	-33.0	-50.1	16.0
300.0	30531.1	-43.4		
250.0	34458.5	-53.4		
236.8	35593.9	-56.0		
200.0	39073.5	-60.2		
158.3	43856.6	-56.7		
150.0	44967.7	-57.4		
118.3	49845.0	-59.6		
100.0	53247.0	-63.5		
81.8	57256.6	-65.4		
70.0	60370.8	-62.7		
64.8	61937.9	-58.6		
54.3	65514.9	-64.0		
50.0	67174.0	-61.3		
30.0	77608.8	-57.1		
20.0	86028.9	-53.8		

STATION ALTITUDE 5951.40 FEET MSL
25 JAN. 76 1145 HRS MST
ASCENSION NO. 9

SIGNIFICANT LEVEL DATA
J250050009
APACHE
TABLE VII. (CONT)

GEOMETRIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
11.1	48515.8	-47.4	

STATION ALTITUDE 3951.40 FEET MSL
25 JAN. 78 1145 HRS MST
ASCENSION NO. 9

UPPER AIR DATA
J250050009
APACHE
TABLE VIII.

GEOMETRIC COORDINATES
32.62700 LAT NEG
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
3951.4	884.8	4.0	-12.4	29.0	1111.0	648.9	350.0	6.0	1.000259
4000.0	883.2	3.7	-12.4	29.8	1110.4	648.5	349.6	5.9	1.000259
4500.0	866.8	1.2	-12.7	34.6	1099.6	645.6	344.9	4.9	1.000257
5000.0	850.5	-2	-13.4	36.0	1084.3	644.0	337.9	4.0	1.000253
5500.0	834.4	-4	-13.7	35.5	1064.6	643.8	326.8	3.1	1.000248
6000.0	818.7	-6	-14.1	35.1	1045.4	643.5	301.1	4.0	1.000247
6500.0	803.1	-1.6	-14.8	35.6	1029.5	642.2	293.8	5.6	1.000239
7000.0	787.8	-2.7	-15.5	36.2	1013.8	641.0	213.0	7.7	1.000235
7500.0	772.9	-3.7	-16.3	36.8	998.3	639.8	327.6	11.8	1.000231
8000.0	758.1	-3.8	-16.5	36.5	979.8	639.6	336.8	18.9	1.000227
8500.0	743.6	-3.3	-16.4	35.2	959.0	640.3	339.2	24.3	1.000222
9000.0	729.5	-2.1	-16.1	33.3	936.9	641.6	339.7	28.4	1.000218
9500.0	715.6	-1.3	-16.3	30.9	916.2	642.6	338.2	30.2	1.000213
10000.0	702.1	-1.0	-17.3	27.5	897.8	643.0	336.1	31.2	1.000208
10500.0	688.7	-1.7	-17.9	27.8	863.1	642.1	335.3	33.8	1.000204
11000.0	675.6	-2.7	-18.3	28.7	869.3	641.0	334.6	36.7	1.000201
11500.0	662.7	-3.6	-18.8	29.6	855.8	639.9	331.8	38.6	1.000198
12000.0	650.0	-4.5	-19.3	30.5	842.4	638.7	329.4	40.5	1.000195
12500.0	637.6	-4.6	-21.0	26.4	826.7	638.6	327.6	42.4	1.000190
13000.0	625.3	-4.4	-23.9	20.0	810.1	638.8	326.9	43.5	1.000185
13500.0	613.3	-5.3	-24.7	20.0	797.3	637.7	327.5	43.6	1.000182
14000.0	601.4	-6.3	-25.5	20.0	784.7	636.6	327.2	42.6	1.000179
14500.0	589.8	-7.2	-26.3	20.0	772.3	635.5	326.0	40.7	1.000176
15000.0	578.4	-8.2	-27.1	20.0	760.1	634.3	325.0	39.6	1.000173
15500.0	567.1	-9.3	-28.1	19.9	748.4	632.9	324.1	38.9	1.000170
16000.0	555.8	-10.6	-29.2	19.8	737.2	631.4	323.7	39.4	1.000167
16500.0	544.8	-11.8	-30.4	19.6	726.1	629.9	323.3	40.1	1.000164
17000.0	534.0	-13.1	-31.5	19.5	715.2	628.3	322.5	42.0	1.000162
17500.0	523.4	-14.4	-32.7	19.3	704.5	626.6	321.5	43.5	1.000159
18000.0	513.1	-15.7	-33.8	19.2	694.0	625.2	319.9	44.5	1.000157

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

UPPER AIR DATA
0250050009
APACHE
TABLE VIII. (CONT)

STATION ALTITUDE 3951.40 FEET MSL
20 JAN. 78 1145 HRS MST
ASCENSION NO. 4

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ IC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
16500.0	502.4	-16.4	19.0	663.6	625.7	319.1	44.9	1.000154
19000.0	492.8	-17.9	18.5	672.3	622.5	318.8	44.9	1.000151
19500.0	482.8	-18.7	17.8	660.8	621.5	320.4	45.9	1.000149
20000.0	473.0	-19.5	17.0	649.4	620.6	322.4	47.1	1.000146
20500.0	463.4	-20.3	16.3	638.2	619.6	323.5	47.5	1.000143
21000.0	453.9	-21.3	16.1	627.8	618.2	324.4	47.6	1.000141
21500.0	444.4	-22.6	16.2	618.0	616.6	325.1	47.5	1.000139
22000.0	435.2	-24.0	16.4	608.3	615.0	325.4	47.8	1.000136
22500.0	426.2	-25.3	16.5	596.8	613.4	325.5	48.4	1.000134
23000.0	417.3	-26.6	16.7	589.5	611.8	325.0	49.2	1.000132
23500.0	408.6	-27.9	16.8	580.3	610.2	324.5	50.1	1.000130
24000.0	400.2	-29.2	17.0	571.3	608.5	323.3	51.2	1.000126
24500.0	391.6	-30.6	16.6	562.4	606.8	322.1	52.2	1.000126
25000.0	383.3	-32.0	16.3	553.6	605.0	320.6	52.1	1.000124
25500.0	375.1	-33.3	15.6**	544.7	603.4	319.6	51.9	1.000122
26000.0	366.8	-34.3	14.0**	534.9	602.1	318.8	51.3	1.000119
26500.0	358.8	-35.3	12.5**	525.4	600.9	318.1	50.9	1.000117
27000.0	350.9	-36.3	10.9**	516.1	599.6	317.5	50.8	1.000115
27500.0	343.2	-37.3	9.4**	506.9	598.3	316.5	50.3	1.000113
28000.0	335.7	-38.3	7.8**	497.9	597.0	315.1	49.5	1.000111
28500.0	328.3	-39.3	6.3**	489.1	595.7	313.3	48.7	1.000109
29000.0	321.1	-40.3	4.7**	480.4	594.5	311.3	47.9	1.000107
29500.0	314.0	-41.3	3.2**	471.9	593.2	309.2	49.7	1.000105
30000.0	307.2	-42.3	1.6**	463.6	591.9	307.3	51.9	1.000103
30500.0	300.4	-43.3	.1**	455.4	590.6	305.1	53.6	1.000101
31000.0	293.5	-44.6		447.4	589.0	303.1	55.1	1.000100
31500.0	286.8	-45.9		439.6	587.3	300.6	53.7	1.000098
32000.0	280.2	-47.1		431.9	585.7	298.0	52.4	1.000096
32500.0	273.8	-48.4		424.4	584.0	295.6	51.4	1.000095
33000.0	267.5	-49.7		417.0	582.4	293.2	50.7	1.000093

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
0200050009
APACHE
TABLE VIII. (CONT)

STATION ALTITUDE 3951.40 FEET MSL
25 JAN. 78 1145 HRS MST
ASCENSION NO. 9

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
33500.0	261.4	-51.0			405.8	580.7	291.4	51.5	1.000091
34000.0	255.4	-52.2			402.7	579.0	289.7	52.6	1.000090
34500.0	249.5	-53.5			395.7	577.4	288.5	54.7	1.000086
35000.0	243.6	-54.6			388.4	575.9	287.6	56.9	1.000087
35500.0	237.9	-55.8			381.2	574.4	287.3	59.5	1.000085
36000.0	232.2	-56.5			373.3	573.4	287.2	62.6	1.000083
36500.0	226.6	-57.1			365.4	572.6	287.9	66.8	1.000081
37000.0	221.2	-57.7			357.6	571.8	288.9	71.1	1.000080
37500.0	215.9	-58.3			350.0	571.0	290.7	75.5	1.000078
38000.0	210.7	-58.9			342.6	570.2	292.2	79.8	1.000076
38500.0	205.6	-59.5			335.3	569.4	293.8	83.0	1.000075
39000.0	200.7	-60.1			328.2	568.6	295.3	86.2	1.000073
39500.0	195.9	-60.1			320.2	568.7	295.1	87.4	1.000071
40000.0	191.1	-59.9			312.3	568.9	294.9	88.4	1.000070
40500.0	186.5	-59.8			304.5	569.1	293.0	87.7	1.000068
41000.0	182.0	-59.6			296.9	569.3	290.5	86.5	1.000066
41500.0	177.6	-59.4			289.6	569.5	287.7	85.4	1.000064
42000.0	173.4	-59.3			282.4	569.7	284.4	84.4	1.000063
42500.0	169.2	-59.1			275.3	569.9	282.0	83.4	1.000061
43000.0	165.1	-59.0			268.5	570.1	280.5	82.2	1.000060
43500.0	161.1	-58.8			261.8	570.4	280.2	81.1	1.000056
44000.0	157.2	-58.5			255.2	570.7	280.5	80.0	1.000057
44500.0	153.4	-57.9			248.4	571.5	280.6	79.7	1.000055
45000.0	149.6	-57.4			241.6	572.2	280.7	79.8	1.000054
45500.0	146.2	-57.6			236.3	571.9	280.6	79.4	1.000053
46000.0	142.6	-57.9			230.8	571.6	280.3	78.8	1.000051
46500.0	139.2	-58.1			225.5	571.3	279.7	77.3	1.000050
47000.0	135.9	-58.3			220.3	571.0	278.8	75.0	1.000049
47500.0	132.6	-58.5			215.3	570.7	277.9	72.5	1.000048
48000.0	129.4	-58.8			210.3	570.4	276.9	69.4	1.000047

UPPER AIR DATA
0250050009
APACHE
TABLE VIII. (CONT)

STATION ALTITUDE 3921.40 FEET MSL
25 JAN. 78
ASCENSION NO. 9

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	RFL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
40500.0	126.3	-59.0			205.5	570.1	276.2	67.1	1.000046
49000.0	123.3	-59.2			200.7	569.8	276.3	66.7	1.000045
49500.0	120.3	-59.4			196.1	569.5	276.4	66.5	1.000044
50000.0	117.4	-59.8			191.7	569.1	276.8	67.6	1.000043
50500.0	114.5	-60.4			187.5	568.3	277.2	68.7	1.000042
51000.0	111.7	-60.9			183.4	567.5	278.8	67.2	1.000041
51500.0	109.0	-61.5			179.4	566.8	280.6	65.4	1.000040
52000.0	106.4	-62.1			175.5	566.0	282.7	62.6	1.000039
52500.0	103.8	-62.6			171.7	565.2	285.2	59.0	1.000038
53000.0	101.2	-63.2			168.0	564.5	287.8	55.7	1.000037
53500.0	98.7	-63.6			164.2	563.9	289.1	53.2	1.000037
54000.0	96.3	-63.9			160.3	563.6	290.5	50.8	1.000036
54500.0	93.9	-64.1			156.5	563.3	291.3	50.4	1.000035
55000.0	91.6	-64.3			152.6	563.0	291.7	51.0	1.000034
55500.0	89.3	-64.6			149.2	562.6	291.9	51.6	1.000033
56000.0	87.1	-64.8			145.7	562.3	291.3	52.7	1.000032
56500.0	85.0	-65.0			142.2	562.0	290.6	53.7	1.000032
57000.0	82.9	-65.3			138.9	561.7	289.3	50.9	1.000031
57500.0	80.8	-65.2			135.4	561.6	287.6	48.1	1.000030
58000.0	78.8	-64.8			131.7	562.4	285.5	43.7	1.000029
58500.0	76.9	-64.3			128.2	563.0	282.9	38.7	1.000029
59000.0	75.0	-63.9			124.8	563.6	280.6	34.6	1.000026
59500.0	73.1	-63.5			121.5	564.1	279.0	31.5	1.000027
60000.0	71.3	-63.0			118.2	564.7	277.7	28.8	1.000026
60500.0	69.6	-62.4			115.0	565.0	278.7	27.7	1.000026
61000.0	67.9	-61.1			111.5	567.3	279.8	26.7	1.000025
61500.0	66.2	-59.9			106.2	568.9	278.3	22.7	1.000024
62000.0	64.6	-56.9			105.0	570.3	275.6	18.5	1.000023
62500.0	63.0	-59.6			102.8	569.3	266.5	13.1	1.000023
63000.0	61.5	-60.3			100.7	568.3	239.0	8.2	1.000022

UPPER AIR DATA
 0250050009
 APACHE

STATION ALTITUDE 3951.40 FEET MSL
 25 JAN. 78 1145 HRS MST
 ASCENSION NO. 9

GEODETTIC COORDINATES
 32.62700 LAT NEG
 106.39352 LON NEG

TABLE VIII. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES (TN)	SPEED KNOTS	
63500.0	60.0	-61.1			98.5	567.3	199.1	7.3	1.000022
64000.0	58.5	-61.8			96.5	566.4	165.0	8.3	1.000021
64500.0	57.1	-62.5			94.4	565.4	174.4	9.7	1.000021
65000.0	55.7	-63.3			92.4	564.4	185.4	8.7	1.000021
65500.0	54.3	-64.0			90.5	563.4	202.0	8.0	1.000020
66000.0	53.0	-63.2			88.0	564.5	225.6	8.0	1.000020
66500.0	51.7	-62.4			85.5	565.6	253.1	9.4	1.000019
67000.0	50.4	-61.6			83.0	566.7	270.4	12.4	1.000018
67500.0	49.2	-61.2			80.9	567.2	281.2	14.3	1.000018
68000.0	48.0	-61.0			78.8	567.5	289.3	16.5	1.000016
68500.0	46.9	-60.8			76.9	567.7	293.9	17.4	1.000017
69000.0	45.7	-60.6			74.9	568.0	296.5	16.6	1.000017
69500.0	44.6	-60.4			73.0	568.3	299.4	15.7	1.000016
70000.0	43.5	-60.2			71.2	568.6	298.5	13.6	1.000016
70500.0	42.5	-60.0			69.4	568.8	296.5	11.4	1.000015
71000.0	41.5	-59.8			67.7	569.1	295.4	9.3	1.000015
71500.0	40.5	-59.6			66.0	569.4	298.5	7.8	1.000015
72000.0	39.5	-59.4			64.3	569.6	303.1	6.2	1.000014
72500.0	38.5	-59.2			62.7	569.9	315.9	5.8	1.000014
73000.0	37.6	-59.0			61.1	570.2	330.7	6.0	1.000014
73500.0	36.7	-58.8			59.6	570.4	342.9	6.5	1.000013
74000.0	35.8	-58.6			58.1	570.7	349.2	7.1	1.000013
74500.0	34.9	-58.4			56.7	571.0	354.4	7.8	1.000013
75000.0	34.1	-58.2			55.2	571.2	1.2	8.1	1.000012
75500.0	33.3	-57.9			53.6	571.5	9.7	8.2	1.000012
76000.0	32.5	-57.7			52.5	571.8	17.9	8.4	1.000012
76500.0	31.7	-57.5			51.2	572.0	23.7	8.6	1.000011
77000.0	30.9	-57.3			49.9	572.3	28.2	8.6	1.000011
77500.0	30.2	-57.1			48.6	572.6	32.8	8.6	1.000011
78000.0	29.4	-56.9			47.4	572.8	35.5	8.5	1.000011

UPPER AIR DATA
020000ZJUN 9
APACHE
TABLE VIII. (CONT)

STATION ALTITUDE 3901.40 FEET 4SL
25 JAN. 78
ASCENSION NO. 9

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	RFL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
76500.0	26.7	-56.8		46.3	573.1	37.6	8.3	1.000010
79000.0	28.1	-56.6		45.1	573.4	39.7	8.1	1.000010
79500.0	27.4	-56.4		44.0	573.6	45.3	8.0	1.000010
80000.0	26.7	-56.2		42.9	573.9	52.1	6.1	1.000010
80500.0	26.1	-56.0		41.9	574.1	58.7	8.3	1.000009
81000.0	25.5	-55.8		40.8	574.4	64.3	8.6	1.000009
81500.0	24.9	-55.6		39.8	574.6	69.4	6.4	1.000009
82000.0	24.3	-55.4		38.8	574.9	74.1	9.3	1.000009
82500.0	23.7	-55.2		37.9	575.2	78.1	9.9	1.000008
83000.0	23.1	-55.0		37.0	575.4	81.5	10.7	1.000008
83500.0	22.6	-54.8		36.0	575.7	84.4	11.5	1.000008
84000.0	22.1	-54.6		35.2	575.9	87.6	12.7	1.000008
84500.0	21.5	-54.4		34.3	576.2	90.5	14.0	1.000008
85000.0	21.0	-54.2		33.4	576.5	92.8	15.4	1.000007
85500.0	20.5	-54.0		32.6	576.7	91.7	15.9	1.000007
86000.0	20.0	-53.8		31.8	577.0	90.5	16.3	1.000007
86500.0	19.6	-53.6		31.0	577.3	89.9	16.7	1.000007
87000.0	19.1	-53.3		30.3	577.6	91.4	16.6	1.000007
87500.0	18.7	-53.0		29.5	578.0	93.0	16.5	1.000007
88000.0	18.2	-52.8		28.8	578.3	93.0	16.4	1.000006
88500.0	17.8	-52.5		28.1	578.6	89.1	16.1	1.000006
89000.0	17.4	-52.3		27.4	579.0	85.1	15.9	1.000006
89500.0	17.0	-52.0		26.8	579.3	77.7	16.0	1.000006
90000.0	16.6	-51.8		26.1	579.7	67.0	16.7	1.000006
90500.0	16.2	-51.5		25.5	580.0	57.4	17.4	1.000006
91000.0	15.6	-51.3		24.8	580.3	54.6	18.5	1.000006
91500.0	15.5	-51.0		24.2	580.7	55.4	18.6	1.000005
92000.0	15.1	-50.7		23.6	581.0	56.1	18.7	1.000005
92500.0	14.7	-50.5		23.1	581.3	62.0	16.6	1.000005
93000.0	14.4	-50.2		22.5	581.7	71.8	14.3	1.000005

STATION ALTITUDE 3951.40 FEET MSL
25 JAN. 78 1145 HRS MST
ASCENSION NO. 9

UPPER AIR DATA
0250050009
APACHE
TABLE VIII. (CONT)

GFODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
93500.0	14.1	-50.0			21.9	562.0		84.8	12.5	1.000005
94000.0	13.7	-49.7			21.4	582.3		91.0	11.1	1.000005
94500.0	13.4	-49.5			20.9	582.7		97.9	9.8	1.000005
95000.0	13.1	-49.2			20.4	583.0		105.3	8.7	1.000005
95500.0	12.8	-48.9			19.9	583.3		97.9	8.2	1.000004
96000.0	12.5	-48.7			19.4	583.7		89.7	7.8	1.000004
96500.0	12.2	-48.4			18.9	584.0				1.000004
97000.0	11.9	-48.2			18.5	584.3				1.000004
97500.0	11.6	-47.9			18.0	584.7				1.000004
98000.0	11.4	-47.7			17.6	585.0				1.000004
98500.0	11.1	-47.4			17.1	585.3				1.000004

STATION ALTITUDE 3951.40 FEET MSL
25 JAN. 78
ASCENSION NO. 9

MANDATORY LEVELS
0250050009
APACHE
TABLE IX.

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5014.	-2	-13.4	36.	237.6	3.9
800.0	6603.	-1.8	-15.0	36.	298.9	6.0
750.0	8278.	-3.7	-16.4	36.	338.9	22.5
700.0	10077.	-9	-17.5	27.	355.7	31.3
650.0	12005.	-4.6	-19.3	30.	325.4	40.6
600.0	14069.	-6.4	-25.6	20.	327.0	42.3
550.0	16281.	-11.2	-29.8	20.	323.5	39.7
500.0	18653.	-17.3	-35.3	19.	319.0	44.9
450.0	21223.	-21.9	-40.7	16.	324.7	47.6
400.0	24026.	-29.2	-46.4	17.	323.1	51.3
350.0	27106.	-36.4	-56.2	11.**	317.3	50.7
300.0	30561.	-43.4			304.7	53.9
250.0	34499.	-53.4			266.4	54.9
200.0	39128.	-60.2			295.3	86.7
175.0	41867.	-59.3			264.7	64.5
150.0	45044.	-57.4			260.8	79.6
125.0	48809.	-59.1			276.3	66.7
100.0	53358.	-63.5			269.1	53.3
80.0	57832.	-65.0			265.6	43.8
70.0	60518.	-62.7			279.1	27.3
60.0	63670.	-61.1			166.4	6.0
50.0	67359.	-61.3			262.6	14.6
40.0	71922.	-59.5			305.9	5.8
30.0	77862.	-57.1			36.1	8.4
25.0	81661.	-55.6			73.9	9.3
20.0	86345.	-53.8			90.5	16.6
15.0	92452.	-50.7			66.8	14.9

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4940.00 FEET MSL
23 JAN. 72
ASCENSION NO. 19

SIGNIFICANT LEVEL DATA
02500-0319
CJALLION
TABLE X.

GEOMETRIC COORDINATES
33.81920 LAT DEG
106.60501 LON DEG

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
MILLIBARS	ALTITUDE MSL FEET	AIR DEGREES CENTIGRADE	DEWPOINT PERCENT	
850.4	4940.0	2.2	-8.6	43.0
839.3	5290.9	.6	-15.3	29.0
786.3	6993.2	-4.1	-15.7	40.0
777.7	10003.6	-5.5	-16.9	29.0
622.3	13013.2	-10.4	-22.4	55.0
618.9	13152.1	-8.0	-23.7	27.0
588.3	14441.0	-8.7	-24.4	16.0
530.0	18506.0	-17.0	-37.4	15.0
481.8	19415.6	-16.1	-41.2	11.0
400.0	23860.0	-29.6	-50.5	11.0
305.3	29690.3	-44.3		
300.0	30358.4	-45.4		
250.0	34254.1	-55.0		
215.3	37324.9	-62.2		
200.0	38817.9	-61.1		
165.3	42727.4	-56.7		
160.8	43322.0	-54.7		
150.0	44743.0	-50.4		
124.6	47716.4	-50.4		
122.2	47972.5	-56.5		
122.3	48942.4	-54.2		
100.0	53024.0	-63.1		
79.3	57050.0	-65.2		
73.3	59257.2	-60.2		
77.7	61172.2	-61.1		
50.0	66570.2	-62.2		
50.0	77500.2	-50.4		
20.0	85725.0	-4.4		

STATION ALTITUDE 4500.00 FEET MSL
25 JAN. 78 1145 HRS MST
ASCENSION NC. 14

UPPER AIR DATA

GEOMETRIC COORDINATES
35.81920 LAT NFG
106.66501 LON NEG

TABLE XI.

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE JUNPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SOUND M/SEC	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES (TN)	SPEED KNOTS	
4940.0	550.4	2.5	-8.8	43.0	1.073.2	647.3	313.0	9.9	1.000255
5000.0	548.5	2.2	-9.6	40.6	1.072.2	646.8	311.5	10.0	1.000253
5500.0	532.6	.0	-15.3	30.4	1.060.9	644.2	322.4	11.3	1.000246
6000.0	516.6	-1.4	-15.3	33.6	1.046.0	642.5	330.9	12.9	1.000243
6500.0	501.3	-2.7	-15.4	36.8	1.031.4	640.9	337.4	14.7	1.000239
7000.0	486.1	-4.1	-15.7	40.0	1.016.9	639.3	337.2	17.2	1.000236
7500.0	471.1	-4.0	-16.1	36.1	997.1	639.4	335.1	20.0	1.000231
8000.0	456.3	-3.9	-16.6	36.3	977.7	639.5	336.7	22.8	1.000226
8500.0	441.9	-3.8	-17.2	34.5	958.7	639.6	337.9	25.8	1.000222
9000.0	427.7	-3.7	-17.7	32.7	940.0	639.7	339.0	28.9	1.000217
9500.0	413.7	-3.6	-18.3	30.8	921.7	639.9	339.7	31.4	1.000213
10000.0	400.1	-3.5	-18.9	29.0	903.8	640.0	340.0	33.0	1.000208
10500.0	386.5	-4.6	-19.5	30.0	890.1	638.6	339.8	34.6	1.000205
11000.0	373.3	-5.8	-20.2	31.0	876.6	637.2	339.3	36.1	1.000202
11500.0	360.2	-6.9	-20.8	32.0	863.4	635.9	337.1	37.8	1.000199
12000.0	347.4	-8.1	-21.5	33.0	850.3	634.5	334.3	39.7	1.000195
12500.0	334.9	-9.2	-22.1	34.0	837.5	633.1	332.9	40.7	1.000192
13000.0	322.6	-10.4	-22.8	35.0	824.9	631.7	332.1	41.7	1.000189
13500.0	310.5	-8.2	-25.1	24.0	802.3	634.3	331.9	43.6	1.000183
14000.0	298.6	-8.5	-27.5	19.8	787.5	633.9	330.8	45.2	1.000179
14500.0	286.9	-6.8	-30.0	16.0	773.3	633.5	329.2	46.6	1.000175
15000.0	275.3	-9.8	-30.9	15.9	760.9	632.3	328.0	47.7	1.000172
15500.0	263.9	-10.9	-31.9	15.7	748.6	631.0	327.2	46.5	1.000169
16000.0	252.7	-11.9	-32.8	15.6	736.8	629.8	327.3	48.9	1.000166
16500.0	241.6	-12.9	-33.7	15.5	725.1	628.5	327.2	48.6	1.000163
17000.0	231.1	-13.9	-34.6	15.4	713.5	627.3	327.1	47.7	1.000161
17500.0	220.5	-14.9	-35.5	15.2	702.2	626.1	326.3	49.7	1.000158
18000.0	210.2	-16.0	-36.5	15.1	691.0	624.8	325.7	51.8	1.000155
18500.0	200.1	-17.0	-37.4	15.0	680.0	623.6	325.7	53.3	1.000153
19000.0	190.0	-17.6	-39.4	12.6	667.9	622.0	325.8	53.7	1.000150

STATION ALTITUDE 4900.00 FEET MSL
 25 JAN. 72
 ASCENSION NO. 19

UPPER AIR DATA
 125004Z 72
 STATION

GEOMETRIC COORDINATES
 33.01420 LAT DEG
 106.00501 LON DEG

TABLE XI. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEGREECENT	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
19500.0	480.1	-16.3	-41.4	11.0	656.2	621.9	326.2	52.5	1.000147
20000.0	470.2	-19.6	-42.5	11.0	645.9	623.4	326.2	52.0	1.000145
20500.0	460.4	-20.9	-43.5	11.0	635.8	618.0	326.1	51.9	1.000142
21000.0	450.9	-22.2	-44.5	11.0	625.9	617.2	325.4	52.4	1.000140
21500.0	441.6	-23.5	-45.6	11.0	616.1	615.0	324.7	52.8	1.000138
22000.0	432.5	-24.8	-46.6	11.0	606.5	614.0	323.7	52.4	1.000136
22500.0	423.5	-26.1	-47.6	11.0	597.1	612.4	322.5	52.0	1.000133
23000.0	414.7	-27.4	-48.7	11.0	587.8	610.8	321.1	51.6	1.000131
23500.0	406.2	-28.7	-49.7	11.0	578.7	609.2	319.8	52.1	1.000129
24000.0	397.6	-29.9	-51.0	10.7**	569.5	607.6	318.6	53.2	1.000127
24500.0	389.0	-31.2	-52.8	9.8**	560.0	606.0	317.8	54.1	1.000125
25000.0	380.5	-32.5	-54.6	8.9**	550.7	604.4	317.0	55.0	1.000123
25500.0	372.2	-33.7	-56.5	7.9**	541.5	602.0	316.5	54.3	1.000121
26000.0	364.0	-35.0	-58.5	7.0**	532.5	601.2	316.0	53.3	1.000119
26500.0	356.1	-36.2	-60.6	6.0**	523.6	599.0	315.6	51.8	1.000117
27000.0	348.3	-37.5	-62.9	5.1**	514.9	598.0	315.0	50.6	1.000115
27500.0	340.7	-38.8	-65.3	4.1**	506.4	596.4	314.2	50.2	1.000113
28000.0	333.3	-40.0	-68.1	3.2**	498.0	594.8	313.2	50.2	1.000111
28500.0	326.0	-41.3	-71.4	2.2**	489.3	593.2	311.8	50.3	1.000109
29000.0	318.9	-42.6	-75.9	1.3**	481.7	591.6	310.1	51.6	1.000107
29500.0	311.9	-43.8	-84.4	.4**	473.3	590.0	307.9	53.1	1.000106
30000.0	305.0	-44.8			465.3	588.7	305.9	54.3	1.000104
30500.0	298.0	-45.7			456.5	587.5	304.1	55.4	1.000102
31000.0	291.1	-47.0			448.4	585.9	302.7	56.6	1.000100
31500.0	284.4	-48.2			440.4	584.3	301.8	57.9	1.000098
32000.0	277.6	-49.4			432.7	582.7	301.0	59.3	1.000096
32500.0	271.4	-50.7			425.0	581.1	300.7	61.0	1.000095
33000.0	265.1	-51.9			417.4	579.5	300.4	62.7	1.000093
33500.0	259.0	-53.1			410.1	577.0	299.9	64.0	1.000091
34000.0	253.0	-54.4			402.8	576.2	299.4	65.2	1.000090

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

COOPER AIR DATA
 2420000 19
 STATION ALTITUDE 4940.00 FEET MSL
 25 JAN. 78
 1145 HRS MST
 ASCENSION NO. 17

COOPER AIR DATA
 2420000 19
 STATION ALTITUDE 4940.00 FEET MSL
 25 JAN. 78
 1145 HRS MST
 ASCENSION NO. 17

STATION ALTITUDE 4940.00 FEET MSL
 25 JAN. 78
 1145 HRS MST
 ASCENSION NO. 17

TABLE XI. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (T)	WIND SPEED KNOTS	INDEX OF REFRACTION
34500.0	247.0	-55.6		395.0	574.0	298.8	66.5	1.000028
35000.0	241.1	-56.8		388.1	573.1	293.2	67.7	1.000036
35500.0	235.5	-58.0		381.9	571.5	297.9	68.6	1.000045
36000.0	229.9	-59.2		375.8	569.9	297.0	71.7	1.000053
36500.0	224.1	-60.3		369.9	568.3	297.2	73.5	1.000062
37000.0	218.7	-61.5		364.1	566.7	296.8	75.2	1.000070
37500.0	213.4	-62.2		358.4	565.9	296.3	76.5	1.000078
38000.0	208.2	-61.8		352.7	565.4	295.5	77.2	1.000086
38500.0	203.2	-61.4		347.0	567.0	294.9	78.4	1.000094
39000.0	198.2	-60.9		341.3	567.6	294.4	80.2	1.000102
39500.0	193.5	-60.5		335.7	568.5	294.0	82.4	1.000110
40000.0	188.8	-59.6		330.2	569.1	293.7	85.1	1.000118
40500.0	184.3	-59.2		324.6	569.8	293.0	86.0	1.000126
41000.0	179.6	-58.6		319.0	570.6	292.0	85.4	1.000134
41500.0	175.5	-58.1		313.3	571.5	290.6	84.3	1.000142
42000.0	171.5	-57.5		307.7	572.1	289.4	81.5	1.000150
42500.0	167.1	-57.0		302.1	572.8	288.0	79.6	1.000158
43000.0	163.1	-56.6		296.5	574.4	287.1	78.7	1.000166
43500.0	159.3	-56.2		290.9	575.1	286.2	77.8	1.000174
44000.0	155.5	-56.5		285.3	575.4	285.1	76.9	1.000182
44500.0	151.6	-57.2		279.7	571.7	283.7	76.0	1.000190
45000.0	148.1	-58.4		274.1	570.9	282.4	75.0	1.000198
45500.0	144.6	-58.4		268.5	570.9	281.0	73.8	1.000206
46000.0	141.1	-58.4		262.9	570.9	279.7	72.6	1.000214
46500.0	137.7	-58.4		257.3	570.9	279.5	71.6	1.000222
47000.0	134.4	-58.4		251.7	570.9	279.3	71.0	1.000230
47500.0	131.2	-58.4		246.1	570.9	279.5	70.6	1.000238
48000.0	128.0	-56.6		240.5	573.5	279.8	70.2	1.000246
48500.0	125.0	-58.0		234.9	571.4	279.6	70.5	1.000254
49000.0	122.0	-59.4		229.3	569.6	279.2	71.1	1.000262

GEOMETRIC COORDINATES
35.01927 LAT DEG
106.66501 LON DEG

UPPER AIR DATA
STATION 15
STALLION
TABLE XI. (CONT)

STATION ALTITUDE 4940.00 FEET MSL
25 JAN. 78
1145 HRS MST
ASCENSION NO. 15

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GRAMS/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
49500.0	119.0	-59.2		194.8	569.3	279.1	71.5	1.000042
50000.0	116.1	-60.3		190.0	566.4	279.4	71.8	1.000042
50500.0	113.3	-60.7		185.8	567.3	279.9	71.7	1.000041
51000.0	110.5	-61.2		181.0	567.1	280.9	70.4	1.000040
51500.0	107.8	-61.7		177.0	566.5	281.9	68.2	1.000040
52000.0	105.2	-62.4		173.7	565.9	282.9	66.0	1.000039
52500.0	102.6	-62.6		169.8	565.2	283.9	63.8	1.000036
53000.0	100.1	-63.1		165.9	564.7	285.1	62.2	1.000037
53500.0	97.6	-63.3		162.1	564.3	286.4	61.1	1.000036
54000.0	95.2	-63.6		158.0	563.9	287.5	59.7	1.000035
54500.0	92.9	-63.9		154.6	563.6	288.2	57.4	1.000034
55000.0	90.6	-64.1		151.0	563.2	288.9	55.2	1.000034
55500.0	88.3	-64.4		147.4	562.9	288.7	50.6	1.000033
56000.0	86.2	-64.6		143.9	562.5	288.1	45.6	1.000032
56500.0	84.0	-64.9		140.6	562.2	287.3	40.5	1.000031
57000.0	82.0	-65.2		137.2	561.8	285.1	36.0	1.000031
57500.0	79.9	-65.4		134.0	561.5	284.6	31.4	1.000030
58000.0	78.0	-64.4		130.1	562.9	283.6	29.0	1.000029
58500.0	76.0	-62.6		126.9	565.0	283.1	27.0	1.000028
59000.0	74.2	-61.5		121.0	567.1	281.8	24.7	1.000027
59500.0	72.4	-60.7		116.6	567.9	279.7	22.2	1.000026
60000.0	70.6	-61.0		112.0	567.5	277.1	20.1	1.000026
60500.0	68.9	-61.2		107.8	567.2	274.5	19.2	1.000025
61000.0	67.2	-61.2		103.5	567.1	271.6	18.4	1.000025
61500.0	65.5	-61.5		99.2	567.0	271.2	19.3	1.000024
62000.0	63.9	-61.4		95.2	566.9	271.2	20.4	1.000023
62500.0	62.4	-61.5		92.7	566.0	271.2	21.5	1.000023
63000.0	60.9	-61.6		90.2	566.0	271.0	22.1	1.000022
63500.0	59.4	-61.7		87.6	566.5	270.9	22.7	1.000022
64000.0	57.9	-61.8		85.5	566.4	271.4	23.1	1.000021

STATION ALTIMETER 494.00 FEET
223 JAN. 70 1145 HRS PST
ASCENSION NO. 19

33.21400 LAT DEG
106.60201 LONG DEG

TABLE XI. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TRUE)	SPEED KNOTS	
64500.0	56.5	-61.9		93.2	506.5	275.1	23.2	1.000021
65000.0	55.1	-62.0		90.9	506.2	274.8	23.3	1.000020
65500.0	53.6	-62.0		88.7	506.0	274.4	23.5	1.000020
66000.0	52.5	-62.1		86.5	505.7	273.1	22.5	1.000019
66500.0	51.2	-62.2		84.5	505.5	270.9	22.6	1.000019
67000.0	49.9	-62.3		82.5	505.7	269.5	21.1	1.000018
67500.0	48.7	-62.1		80.0	506.0	281.1	19.4	1.000018
68000.0	47.5	-61.9		78.4	506.2	281.8	17.7	1.000017
68500.0	46.4	-61.7		76.5	506.5	282.2	15.5	1.000017
69000.0	45.2	-61.5		74.5	506.7	282.7	13.4	1.000017
69500.0	44.1	-61.3		72.6	507.0	282.9	11.4	1.000016
70000.0	43.1	-61.2		70.9	507.2	283.1	10.9	1.000016
70500.0	42.0	-61.0		69.0	507.5	277.1	10.4	1.000015
71000.0	41.0	-60.8		67.3	507.7	274.9	9.9	1.000015
71500.0	40.0	-60.6		65.6	508.0	275.5	9.1	1.000015
72000.0	39.0	-60.4		63.9	508.2	276.3	8.5	1.000014
72500.0	38.1	-60.2		62.1	508.5	278.5	7.3	1.000014
73000.0	37.2	-60.0		60.7	508.7	282.6	5.2	1.000014
73500.0	36.3	-59.8		59.2	509.0	320.2	3.7	1.000013
74000.0	35.4	-59.7		57.7	509.2	.4	3.6	1.000013
74500.0	34.5	-59.5		56.3	509.5	25.2	4.8	1.000012
75000.0	33.7	-59.5		54.9	509.7	40.3	6.3	1.000012
75500.0	32.9	-59.1		53.5	510.0	49.0	8.1	1.000012
76000.0	32.1	-58.9		52.1	510.2	61.9	10.4	1.000012
76500.0	31.3	-58.7		50.8	510.5	70.6	13.2	1.000011
77000.0	30.5	-58.5		49.5	510.7	76.1	16.1	1.000011
77500.0	29.6	-58.3		48.3	511.0	75.4	17.1	1.000011
78000.0	29.1	-58.1		47.1	511.3	73.1	17.4	1.000010
78500.0	28.4	-57.9		45.9	511.6	73.9	17.7	1.000010
79000.0	27.7	-57.6		44.6	511.9	92.6	15.8	1.000010

GEOMETRIC COORDINATES
23.81920 LAT DEG
100.00531 LON DEG

UPPER AIR DATA
220000Z JAN 72
STATION 7C
TABLE XI. (CONT)

STATION ALTITUDE 4700.00 FEET MSL
23 JAN. 72
1145 HRS PST
ASCENSION NO. 19

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUMID. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CELSIUS			KNOTS	KNOTS	DIRECTION DEGREES (TR)	SPEED KNOTS	
79500.0	27.0	-57.4			43.7	572.2		44.3	13.0	1.000010
80000.0	26.4	-57.2			42.8	572.5		19.8	12.0	1.000009
80500.0	25.8	-56.9			41.6	572.8		350.8	13.5	1.000009
81000.0	25.1	-56.7			40.2	573.2		200.9	13.0	1.000009
81500.0	24.5	-56.5			39.2	573.5		351.1	13.6	1.000009
82000.0	24.0	-56.2			38.8	573.8		348.4	13.7	1.000009
82500.0	23.4	-56.0			37.5	574.1		356.2	12.5	1.000008
83000.0	22.8	-55.8			36.6	574.4		17.4	11.2	1.000008
83500.0	22.3	-55.5			35.7	574.7		40.4	11.6	1.000008
84000.0	21.7	-55.3			34.8	575.0				1.000008
84500.0	21.2	-55.1			33.5	575.3				1.000008
85000.0	20.7	-54.8			32.1	575.6				1.000007
85500.0	20.2	-54.6			32.2	575.9				1.000007

STATION ALTITUDE 4940.00 FEET ASL
25 JAN. 78
ASCENSION NO. 14

ADDITIONAL DATA
STATION
TABLE XII.

COORDINATE COORDINATES
33.01920 LAT DEG
106.66501 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (°)	SPEED KNOTS
850.0	4956.	2.4	-9.1	42.	310.4	9.9
800.0	6545.	-2.9	-15.4	37.	337.9	14.9
750.0	8217.	-3.9	-16.9	36.	337.2	24.1
700.0	10005.	-3.9	-18.9	29.	340.4	33.1
650.0	11911.	-7.8	-21.3	33.	334.7	39.4
600.0	13946.	-8.4	-27.2	20.	331.0	45.1
550.0	16147.	-12.1	-33.3	16.	327.3	49.1
500.0	18516.	-17.0	-37.4	15.	325.7	53.4
450.0	21086.	-22.3	-44.6	11.	320.3	52.5
400.0	23864.	-29.6	-50.5	11.	316.8	53.0
350.0	26961.	-37.2	-62.3	5.***	315.0	50.6
300.0	30391.	-45.4			304.4	55.3
250.0	34296.	-55.0			299.0	66.1
200.0	38876.	-61.1			294.4	50.0
175.0	41617.	-58.0			290.3	43.3
150.0	44823.	-52.4			282.6	75.2
125.0	48590.	-58.0			279.4	70.7
100.0	52140.	-63.1			282.8	61.6
80.0	57620.	-65.4			284.0	49.0
70.0	60324.	-61.1			274.5	19.2
60.0	63401.	-61.6			271.8	22.9
50.0	67161.	-62.2			261.0	19.8
40.0	71731.	-60.6			276.2	8.4
30.0	77607.	-58.4			13.6	17.3
25.0	81385.	-56.6			351.0	13.6
20.0	86051.	-54.2				

*** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

SIGNIFICANT LEVEL DATA

0250030128

JALLEN

TABLE XIII.

STATION ALTITUDE 4021.00 FEET MSL
29 JAN. 78
ASCENSION NO. 28
1300 HRS MST

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM. PERCENT
MILLIBARS	MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
876.7	4021.0	6.3	-6.0	41.0
868.8	4358.0	4.0	-8.0	41.0
850.0	4939.5	2.1	-8.9	44.0
843.5	5139.0	2.0	-8.7	45.0
764.2	7734.7	-2.5	-13.3	45.0
745.6	8377.0	-1.1	-12.0	41.0
700.0	10025.4	-2.2	-15.2	36.0
671.4	11106.8	-4.8	-10.3	40.0
617.8	13247.0	-0.0	-20.0	32.0
500.0	18571.3	-16.3	-32.2	23.0
484.9	19325.9	-17.3	-35.3	19.0
400.0	23935.0	-29.9	-45.1	21.0
366.4	25959.6	-35.2	-49.6	21.0
300.0	30412.3	-46.6		
250.0	34291.5	-55.7		
213.6	37064.7	-59.3		
200.0	38890.2	-58.4		
195.8	39325.8	-59.3		
166.6	40316.8	-57.0		
150.0	44816.5	-58.8		
135.6	46289.8	-59.1		
128.6	47901.3	-61.6		
106.2	51441.6	-63.2		
100.0	53030.3	-61.4		
84.7	56411.3	-59.1		
70.0	60278.4	-62.8		
62.7	62514.7	-56.6		
51.8	66380.2	-64.0		
50.0	67089.3	-62.5		
34.0	74925.8	-58.2		

GEOMETRIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

UPPER AIR DATA
025000Z
JALLEN
TABLE XIV.

STATION ALTITUDE 4001.00 FEET 4SL
25 JAN. 76 1300 HRS MST
ASCENSION NO. 28

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	676.7	6.3	-6.0	41.0	1093.6	651.8	140.0	2.9	1.000263
4500.0	664.2	3.5	-8.2	41.7	1086.5	648.2	122.1	.7	1.000258
5000.0	648.1	2.1	-8.8	44.3	1071.9	646.2	234.8	1.8	1.000255
5500.0	632.1	1.4	-7.3	44.7	1054.5	645.9	329.6	4.3	1.000250
6000.0	616.4	.5	-10.2	44.5	1037.9	644.9	322.8	6.8	1.000245
6500.0	601.0	-0.4	-11.1	44.0	1021.6	643.8	317.2	9.3	1.000241
7000.0	585.9	-1.2	-12.0	43.6	1005.6	642.8	318.5	9.8	1.000236
7500.0	571.1	-2.1	-12.9	43.2	989.9	641.7	320.5	10.1	1.000232
8000.0	556.5	-1.9	-13.0	42.2	970.5	642.0	325.0	13.7	1.000228
8500.0	542.1	-1.2	-12.8	40.6	949.5	642.8	328.6	17.9	1.000223
9000.0	528.0	-1.5	-13.6	39.1	932.7	642.4	333.0	24.4	1.000219
9500.0	514.2	-1.8	-14.4	37.6	916.1	642.0	335.4	29.5	1.000214
10000.0	500.7	-2.2	-15.2	36.1	899.9	641.6	337.0	33.1	1.000210
10500.0	487.3	-3.3	-15.7	37.8	886.5	640.2	336.0	34.9	1.000207
11000.0	474.2	-4.5	-16.2	39.6	873.5	638.8	333.5	35.5	1.000204
11500.0	461.2	-5.0	-16.9	38.5	858.3	638.2	331.6	36.4	1.000200
12000.0	448.5	-5.3	-17.5	36.1	842.7	637.9	330.1	37.7	1.000196
12500.0	436.0	-5.6	-18.6	34.8	827.4	637.5	331.2	39.2	1.000192
13000.0	423.8	-5.9	-19.5	32.9	812.3	637.2	333.2	40.9	1.000188
13500.0	411.6	-6.5	-20.6	31.6	798.5	636.4	333.6	41.1	1.000184
14000.0	399.6	-7.5	-21.7	30.7	785.6	635.2	333.5	41.0	1.000181
14500.0	387.8	-8.4	-22.9	29.9	773.0	634.1	331.3	40.0	1.000177
15000.0	376.2	-9.4	-24.1	29.0	760.7	632.9	328.8	39.2	1.000174
15500.0	364.9	-10.4	-25.2	28.2	748.5	631.7	325.6	38.6	1.000171
16000.0	353.6	-11.3	-26.4	27.3	736.5	630.5	323.4	38.6	1.000168
16500.0	342.9	-12.3	-27.6	26.5	724.7	629.3	321.8	38.9	1.000165
17000.0	332.2	-13.3	-28.8	25.7	713.1	628.2	321.2	39.4	1.000162
17500.0	321.7	-14.2	-30.0	24.8	701.7	627.0	320.6	40.2	1.000159
18000.0	311.5	-15.2	-31.2	24.0	690.5	625.8	319.6	42.0	1.000156
18500.0	301.4	-16.2	-32.4	23.1	679.5	624.6	319.0	44.2	1.000154

STATION ALTITUDE 4001.00 FEET MSL
25 JAN. 78 1300 HRS MST
ASCENSION NO. 28

UPPER AIR DATA
J250030028
JALLEN
TABLE XIV. (CONT)

GEOMETRIC COORDINATES
33.16712 LAT DEG
105.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	DEW POINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
19000.0	491.4	-16.9	-34.1	20.7	667.7	623.7	318.8	46.6	1.000151
19500.0	481.4	-17.8	-35.7	19.1	656.5	621.6	318.6	46.5	1.000146
20000.0	471.4	-19.1	-36.7	19.3	646.4	621.0	315.5	45.7	1.000146
20500.0	461.7	-20.5	-37.8	19.5	636.5	619.5	317.3	44.5	1.000142
21000.0	452.2	-21.9	-38.8	19.7	626.8	617.6	316.2	43.5	1.000141
21500.0	442.6	-23.2	-39.9	19.9	617.2	615.9	315.2	44.9	1.000139
22000.0	433.7	-24.6	-40.9	20.2	607.6	614.2	314.3	45.6	1.000136
22500.0	424.7	-26.0	-42.0	20.4	598.5	612.5	313.4	45.7	1.000134
23000.0	415.9	-27.3	-43.1	20.6	589.4	610.8	312.7	46.2	1.000132
23500.0	407.3	-28.7	-44.1	20.8	580.5	609.1	312.0	46.9	1.000130
24000.0	398.9	-30.1	-45.2	21.0	571.6	607.4	311.4	49.2	1.000128
24500.0	390.5	-31.4	-46.4	21.0	562.4	605.6	310.8	51.6	1.000126
25000.0	382.0	-32.7	-47.5	21.0	553.3	604.1	309.8	53.3	1.000124
25500.0	373.8	-34.0	-48.6	21.0	544.4	602.5	308.8	54.7	1.000122
26000.0	365.7	-35.3	-49.8	20.8**	535.6	600.8	307.1	55.4	1.000120
26500.0	357.6	-36.6	-51.9	18.5**	526.6	599.2	305.2	51.6	1.000118
27000.0	349.7	-37.9	-54.1	16.1**	517.7	597.6	302.3	49.9	1.000116
27500.0	341.9	-39.1	-56.5	13.7**	509.0	596.0	299.1	48.1	1.000114
28000.0	334.3	-40.4	-59.0	11.4**	500.4	594.3	297.3	50.1	1.000112
28500.0	326.5	-41.7	-61.9	9.0**	492.0	592.7	295.7	52.2	1.000110
29000.0	319.6	-43.0	-65.1	6.7**	483.2	591.0	295.8	55.3	1.000108
29500.0	312.5	-44.3	-69.2	4.3**	475.7	589.4	295.9	58.4	1.000106
30000.0	305.6	-45.5	-75.4	1.9**	467.7	587.7	295.9	59.1	1.000104
30500.0	298.8	-46.8			459.8	586.1	295.9	59.8	1.000102
31000.0	291.8	-48.0			451.5	584.6	295.7	60.4	1.000101
31500.0	285.0	-49.2			443.3	583.1	295.5	61.0	1.000099
32000.0	278.4	-50.5			435.3	581.5	295.3	62.5	1.000097
32500.0	272.0	-51.5			427.4	580.0	295.2	64.2	1.000095
33000.0	265.6	-52.7			419.7	578.5	295.3	66.9	1.000093
33500.0	259.5	-53.8			412.2	576.8	295.7	70.8	1.000092

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4021.00 FEET MSL
25 JAN. 78 1300 HRS 4ST
ASCENSION NO. 20

UPPER AIR DATA
0250030028
JALLEN
TABLE XIV. (CONT)

GEOMETRIC COORDINATES
33.16712 LAT OFG
106.44511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC CMETER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TR)	SPEED KNOTS	
34000.0	253.4	-55.0		404.8	575.4	296.5	76.9	1.000090
34500.0	247.5	-56.0		397.0	574.1	296.6	82.7	1.000086
35000.0	241.6	-56.6		388.7	573.3	296.9	88.3	1.000087
35500.0	235.8	-57.3		380.3	572.4	296.1	69.4	1.000085
36000.0	230.2	-57.9		372.5	571.5	294.9	68.4	1.000083
36500.0	224.7	-58.6		364.7	570.7	293.3	85.2	1.000081
37000.0	219.3	-59.2		357.1	569.8	291.4	61.6	1.000080
37500.0	214.0	-59.1		348.3	570.0	289.8	79.7	1.000076
38000.0	208.4	-58.8		339.5	570.3	286.1	76.0	1.000074
38500.0	203.6	-58.6		331.0	570.6	286.7	77.1	1.000074
39000.0	198.9	-58.6		323.0	570.6	285.4	76.3	1.000072
39500.0	194.2	-58.9		315.7	570.2	284.5	76.2	1.000070
40000.0	189.5	-57.7		306.4	571.6	283.6	76.3	1.000066
40500.0	184.9	-57.1		296.2	572.7	283.4	77.2	1.000066
41000.0	180.5	-57.3		291.3	572.4	283.1	78.6	1.000065
41500.0	176.2	-57.5		284.6	572.1	282.8	80.0	1.000063
42000.0	172.0	-57.7		276.0	571.4	282.5	81.6	1.000062
42500.0	167.8	-57.9		271.6	571.0	282.3	82.4	1.000060
43000.0	163.8	-58.1		265.3	571.3	282.1	82.7	1.000059
43500.0	159.4	-58.3		259.2	571.1	281.6	81.4	1.000058
44000.0	155.1	-58.5		253.2	570.8	280.8	79.1	1.000056
44500.0	152.3	-58.7		247.4	570.5	280.0	76.9	1.000055
45000.0	148.7	-58.8		241.7	570.3	279.2	74.7	1.000054
45500.0	145.1	-58.9		235.4	570.2	278.6	73.2	1.000053
46000.0	141.6	-59.0		230.4	570.1	278.3	72.4	1.000051
46500.0	138.2	-59.4		225.2	569.6	278.0	71.5	1.000050
47000.0	134.6	-60.2		220.5	568.6	277.2	69.9	1.000049
47500.0	131.5	-60.9		215.9	567.6	276.4	68.3	1.000048
48000.0	128.4	-61.6		211.4	566.6	275.9	66.4	1.000047
48500.0	125.2	-61.9		206.5	566.2	275.6	64.4	1.000046

UPPER AIR DATA
J25030128
JALLEN
TABLE XIV. (CONT)

STATION ALTITUDE 401.00 FEET MSL
25 JAN. 76
ASCENSION NO. 28
1300 HRS PST

GEODETIC COORDINATES
33.16712 LAT NEG
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
49000.0	122.1	-62.2		201.7	565.9	276.4	62.2	1.000045
49500.0	119.1	-62.4		197.0	565.2	278.1	60.0	1.000044
50000.0	116.2	-62.7		192.4	565.1	280.0	58.0	1.000043
50500.0	113.4	-63.0		187.9	564.8	282.2	56.2	1.000042
51000.0	110.6	-63.3		183.6	564.4	284.0	55.4	1.000041
51500.0	107.9	-63.4		179.2	564.2	285.2	55.8	1.000040
52000.0	105.2	-62.8		174.7	565.1	286.1	55.5	1.000039
52500.0	102.7	-62.1		169.5	566.0	286.4	54.2	1.000038
53000.0	100.2	-61.4		164.8	566.8	286.5	51.6	1.000037
53500.0	97.7	-61.1		160.5	567.2	287.6	45.1	1.000036
54000.0	95.3	-60.7		156.4	567.6	284.4	38.6	1.000035
54500.0	93.0	-60.4		152.3	568.2	282.1	32.6	1.000034
55000.0	90.6	-60.1		148.4	568.7	276.8	26.7	1.000033
55500.0	88.6	-59.7		144.6	569.1	276.3	25.4	1.000032
56000.0	86.4	-59.4		140.8	569.6	274.2	25.0	1.000031
56500.0	84.3	-59.2		137.3	569.9	272.4	25.5	1.000031
57000.0	82.3	-59.7		134.7	565.2	271.0	26.2	1.000030
57500.0	80.3	-60.1		131.3	566.6	270.4	27.1	1.000029
58000.0	78.3	-60.6		128.4	567.9	270.7	27.1	1.000029
58500.0	76.4	-61.1		125.5	567.5	271.6	27.2	1.000028
59000.0	74.6	-61.6		122.8	566.7	275.3	27.7	1.000027
59500.0	72.7	-62.1		120.0	566.0	276.8	26.4	1.000027
60000.0	71.0	-62.5		117.4	565.4	280.9	27.7	1.000026
60500.0	69.2	-62.4		114.4	565.6	282.9	27.0	1.000025
61000.0	67.6	-61.4		111.2	566.8	283.0	24.5	1.000025
61500.0	65.9	-60.5		108.0	568.1	281.7	21.2	1.000024
62000.0	64.3	-59.6		104.9	569.4	279.6	18.0	1.000023
62500.0	62.7	-58.6		101.6	570.6	277.2	15.5	1.000023
63000.0	61.2	-59.2		99.7	569.7	273.6	13.0	1.000022
63500.0	59.7	-60.0		97.6	568.8	271.2	11.6	1.000022

UPPER AIR DATA
02500000Z
JALLEN
TABLE XIV. (CONT)

STATION ALTITUDE 4021.00 FEET MSL
25 JAN. 78
ASCENSION NO. 20
1300 HRS 45T

GEOPOTIC COORDINATES
33.16712 LAT DEG
106.44511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES TRUE	SPEED KNOTS	
64000.0	58.3	-60.7	95.5	507.9	209.6	10.8	1.000021	
64500.0	56.6	-61.4	93.5	506.9	208.2	9.9	1.000021	
65000.0	55.5	-62.1	91.5	506.0	270.0	9.6	1.000020	
65500.0	54.1	-62.6	89.6	505.1	271.9	9.2	1.000020	
66000.0	52.8	-63.5	87.7	504.1	276.1	9.6	1.000020	
66500.0	51.5	-63.7	85.7	503.8	281.3	10.8	1.000019	
67000.0	50.2	-62.7	83.1	503.2	285.5	12.0	1.000019	
67500.0	49.0	-62.3	80.9	505.7	288.4	13.2	1.000018	
68000.0	47.8	-62.0	78.4	506.1	290.7	14.3	1.000018	
68500.0	46.6	-61.7	76.9	505.5	292.8	15.2	1.000017	
69000.0	45.5	-61.5	74.4	506.8	295.9	13.5	1.000017	
69500.0	44.4	-61.2	73.0	507.2	299.9	12.0	1.000016	
70000.0	43.3	-60.9	71.1	507.6	305.7	10.4	1.000016	
70500.0	42.3	-60.6	69.3	507.9	315.0	8.9	1.000015	
71000.0	41.2	-60.4	67.5	508.3	327.5	7.8	1.000015	
71500.0	40.2	-60.1	65.2	508.7	335.2	7.7	1.000015	
72000.0	39.3	-59.8	64.1	509.0	336.4	6.2	1.000014	
72500.0	38.3	-59.5	62.5	509.4	337.5	8.6	1.000014	
73000.0	37.4	-59.3	60.9	509.8			1.000014	
73500.0	36.5	-59.0	59.3	570.1			1.000013	
74000.0	35.6	-58.7	57.8	570.5			1.000013	
74500.0	34.7	-58.4	56.3	570.9			1.000013	

STATION ALTITUDE +051.00 FEET MSL
25 JAN. 78 1300 HRS MST
ASCENSION NO. 28

MANDATORY LEVELS
J250J30028
JALLÉN
TABLE XV.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4939.	2.1	-8.9	44.	336.5	1.6
800.0	6538.	-4	-11.2	44.	316.9	9.5
750.0	8224.	-1.4	-12.8	41.	326.4	15.3
700.0	10026.	-2.2	-15.2	36.	357.1	35.4
650.0	11943.	-5.3	-17.7	37.	330.3	37.6
600.0	14000.	-7.4	-21.7	31.	333.4	41.0
550.0	16205.	-11.7	-26.8	27.	322.7	36.7
500.0	18580.	-16.3	-32.5	23.	319.0	44.7
450.0	21155.	-22.2	-39.1	20.	315.8	44.2
400.0	23952.	-29.9	-45.1	21.	311.4	49.1
350.0	27022.	-37.8	-54.1	16.**	301.9	49.7
300.0	30444.	-46.6			295.9	59.8
250.0	34333.	-55.7			296.8	81.4
200.0	38946.	-58.4			265.3	76.3
175.0	41709.	-57.5			282.7	80.9
150.0	44894.	-58.8			275.2	74.7
125.0	48628.	-61.9			275.6	63.4
100.0	53143.	-61.4			266.1	48.0
80.0	57712.	-60.2			270.6	27.1
70.0	60427.	-62.8			285.4	26.8
60.0	63581.	-59.8			270.3	11.2
50.0	67277.	-62.5			286.4	13.1
40.0	71821.	-60.0			336.6	8.2

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.